



#2

OIPE

RAW SEQUENCE LISTING

DATE: 02/25/2002

PATENT APPLICATION: US/10/067,761

TIME: 11:56:20

Input Set : N:\Crf3\RULE60\10067761.txt

Output Set: N:\CRF3\02252002\J067761.raw

2 <110> APPLICANT: Shi et al.
 4 <120> TITLE OF INVENTION: Serine protease Polynucleotides, Polypeptides, and
 Antibodies

6 <130> FILE REFERENCE: PT005P4
 8 <140> CURRENT APPLICATION NUMBER: 10/067,761
 C--> 9 <141> CURRENT FILING DATE: 2002-02-08

11 <150> PRIOR APPLICATION NUMBER: 09/804,156
 12 <151> PRIOR FILING DATE: 2001-03-13
 14 <150> PRIOR APPLICATION NUMBER: 60/189,025
 15 <151> PRIOR FILING DATE: 2000-03-14
 17 <160> NUMBER OF SEQ ID NOS: 38
 19 <170> SOFTWARE: PatentIn Ver. 2.0
 22 <210> SEQ ID NO: 1

23 <211> LENGTH: 733

24 <212> TYPE: DNA

25 <213> ORGANISM: Homo sapiens

27 <400> SEQUENCE: 1

28	gggatccgga	gcccaaatct	tctgacaaaa	ctcacacatg	cccaccgtgc	ccagcacctg	60
29	aattcgaggg	tgcaccgtca	gtcttcctct	tcccccaaaa	acccaaggac	accctcatga	120
30	tctcccgga	tcctgaggtc	acatgcgtgg	tggtggacgt	aagccacgaa	gaccctgagg	180
31	tcaagttcaa	ctggtacgtg	gacggcgtgg	aggtgcataa	tgccaagaca	aagccgcggg	240
32	aggagcagta	caacagcacg	taccgtgtgg	tcagcgtcct	caccgtcctg	caccaggact	300
33	ggctgaatgg	caaggagtac	aagtgcaagg	tctccaacaa	agccctccca	acccccatcg	360
34	agaaaaccat	ctccaaagcc	aaagggcagc	cccgagaacc	acaggtgtac	accctgcccc	420
35	catcccggga	tgagctgacc	aagaaccagg	tcagcctgac	ctgcctggtc	aaaggcttct	480
36	atccaagcga	catcgccgtg	gagtgaggaga	gcaatgggca	gccggagaa	aactacaaga	540
37	ccacgcctcc	cgtgctggac	tccgacggct	ccttcttctc	ctacagcaag	ctcaccgtgg	600
38	acaagagcag	gtggcagcag	gggaacgtct	tctcatgctc	cgtgatgcat	gaggctctgc	660
39	acaaccacta	cacgcagaag	agcctctccc	tgtctccggg	taaattgagt	cgacggccgc	720
40	gactctagag	gat					733

43 <210> SEQ ID NO: 2

44 <211> LENGTH: 1776

45 <212> TYPE: DNA

46 <213> ORGANISM: Homo sapiens

48 <400> SEQUENCE: 2

49	ccacgcgtcc	gcaagttcag	tcaacagaag	catggagtgt	tggtcatat	gctgttgatt	60
50	tgtagatttc	actctactga	ggatcctgaa	actgtagata	aaattgttca	acttgtttta	120
51	catgaaaagc	tgcaagatgc	tgtaggacct	cctaaagtag	atcctcactc	agttaaaatt	180
52	aaaaaaatca	acaagacaga	aacagacagc	tatctaaacc	attgctgcgg	aacacgaaga	240
53	agtaaaactc	taggtcagag	tctcaggatc	gttggtggga	cagaagtaga	agagggtgaa	300
54	tggccctggc	aggctagcct	gcagtgggat	gggagtcac	gctgtggagc	aaccttaatt	360
55	aatgccacat	ggcttgtgag	tgctgctcac	tgttttacaa	catataagaa	ccctgccaga	420
56	tggactgctt	cctttggagt	aacaataaaa	ccttcgaaaa	tgaaacgggg	tctccggaga	480
57	ataattgtcc	atgaaaaata	caaacaccca	tcacatgact	atgatatttc	tcttgcaag	540

RAW SEQUENCE LISTING

DATE: 02/25/2002

PATENT APPLICATION: US/10/067,761

TIME: 11:56:20

Input Set : N:\Crif3\RULE60\10067761.txt

Output Set: N:\CRF3\02252002\J067761.raw

```

58 ctttctagcc ctgttcccta cacaaatgca gtacatagag tttgtctccc tgatgcatcc 600
59 tatgagtttc aaccagggtga tgtgatgttt gtgacaggat ttggagcact gaaaaatgat 660
60 ggttacagtc aaaatcatct tcgacaagca cagggtgactc tcatagacgc tacaacttgc 720
61 aatgaacctc aagcttacaa tgacgccata actcctagaa tgttatgtgc tggctcctta 780
62 gaaggaaaaa cagatgcatg ccagggtgac tctggaggac cactggttag ttcagatgct 840
63 agagatatct ggtaccttgc tggaatagtg agctggggag atgaatgtgc gaaacccaac 900
64 aagcctggtg tttatactag agttacggcc ttgcgggact ggattacttc aaaaactggt 960
65 atctaagaga caaaagcctc atggaacaga taacattttt ttttgttttt tgggtgtgga 1020
66 ggccattttt agagatacac aattggagaa gacttgcaaa acagctagat ttgactgac 1080
67 tcaataaact gtttgcttga tgcattgtatt ttcttccag ctctgttccg cagctaagca 1140
68 tctgtcttct gccagatcaa ctctgtcact tgtgagcaat agttgaaact ttatgtacat 1200
69 agagaaatag ataatacaat attacattac agcctgtatt catttgctct ctagaagttt 1260
70 tgtcagaatt ttgacttgtt gacataaatt tgtaatgcat atatacaatt tgaagcactc 1320
71 cttttcttca gttcctcagc tctctcatt tcagcaaata tccattttca aggtgcagaa 1380
72 caaggagtga aagaaaatat aagaagaaaa aaatccccta cattttattg gcacagaaaa 1440
73 gtattaggtg tttttcttag tggaatatta gaaatgatca tttcattat gaaaggtcaa 1500
74 gcaaagacag cagaatacca atcacttcat catttaggaa gtatgggaac taagttaagg 1560
75 aagtcagaa agaagccaag atatatcctt attttcatct ccaaacaact actatgataa 1620
76 atgtgaagaa gattctgttt tttgtgacct ataataatta tacaacttc atgcaatgta 1680
77 cttgtctaag caaattaaag caaatattta tttacattg tactgaggat gtcaacatat 1740
78 aacaataaaa taaatcaccc aaaaaaaaaa aaaaaa 1776
81 <210> SEQ ID NO: 3
82 <211> LENGTH: 1441
83 <212> TYPE: DNA
84 <213> ORGANISM: Homo sapiens
86 <400> SEQUENCE: 3
87 gcgctcagaag gttctaactt ttgtcatcac tattaccagc attgtcatcg ttatcgttat 60
88 cttcgtcactc atcattacca ccgttatacc tgatactgcc ataacaatca gaacattatg 120
89 tacaggcagc gcatacttcc ccaaagatct tggccactat ggactacgat ctttattttt 180
90 cttggagtg cggcaatctt gggagtaacc attggtcttc ttgttcattt tctggcagtt 240
91 gagaagactt actattatca aggtgatttt catatttctg gagtcacata caatgataat 300
92 tgtgaaaacg cagcttcaca agccagcaca aatctaagca aagatattga gactaagatg 360
93 ttaaatgcat ttcaaaattc cagtatatat aaggaatatg tcaaatctga ggtcatcaaa 420
94 cttctgccta atgccaatgg ttcaaatgtg cagttacagc tgaaattcaa gtttcctcca 480
95 gcagaaggag tttagcatgag gactaaaatc aaggctaaat tacatcagat gttgaaaaac 540
96 aacatggcat cctggaatgc agttcctgct tccattaaac tcatggaaat cagcaaggct 600
97 gcttctgaaa tgcttaccac caactgttgt gggagacaag tagccaacag tatcataact 660
98 ggcaacaaaa ttgtgaatgg aaaaagctcc ctggaggggg catggccatg gcaggccagc 720
99 atgcaatgga aaggccgtca ctactgtgga gcctctctga tcagcagcag gtggctatta 780
100 tctgcagctc actgctttgc taagaaaaat aattcaaaag attggactgt caactttgga 840
101 attgtagtaa ataaaccata tatgacacgg aaagtccaaa acattatttt tcatgaaaat 900
102 tatagcagtc ctgggcttca tgatgatatt gcccttgctg agcttgctga agaagtttct 960
103 tttacagagt acattcgtaa gatttgtctt cctgaagcca aatgaagct ctcagaaaaat 1020
104 gacaatgttg tagttacagg ttggggaaca ctttatatga atggttcatt tccagtata 1080
105 cttcaagaag cttttttgaa gattattgac aacaaaattt gcaatgcctc atatgcatac 1140
106 tctggctttg tgactgatac aatgttatgt gctggattta tgtcaggaga agctgatgca 1200
107 tgtcagaatg attctggtgg accactagct taccctgatt ccagaaatat ctggcatctt 1260
108 gttggaatag taagctgggg tgatggatgt ggtaaaaaga ataagccagg tgtctatact 1320
109 cgagtgactt cttatcgcaa ttggattaca tccaagactg gactctgaaa aaaaaggaat 1380

```

RAW SEQUENCE LISTING

DATE: 02/25/2002

PATENT APPLICATION: US/10/067,761

TIME: 11:56:20

Input Set : N:\Crif3\RULE60\10067761.txt

Output Set: N:\CRF3\02252002\J067761.raw

```

110 tatacaaagg aacataaaga ccaactgtagg ctatccttaa aaaaaaaaaa aaaaaaaaaa 1440
111 a 1441
114 <210> SEQ ID NO: 4
115 <211> LENGTH: 1939
116 <212> TYPE: DNA
117 <213> ORGANISM: Homo sapiens
119 <220> FEATURE:
120 <221> NAME/KEY: SITE
121 <222> LOCATION: (308)
122 <223> OTHER INFORMATION: n equals a,t,g, or c
124 <220> FEATURE:
125 <221> NAME/KEY: SITE
126 <222> LOCATION: (1915)
127 <223> OTHER INFORMATION: n equals a,t,g, or c
129 <220> FEATURE:
130 <221> NAME/KEY: SITE
131 <222> LOCATION: (1938)
132 <223> OTHER INFORMATION: n equals a,t,g, or c
134 <400> SEQUENCE: 4
135 gggcttccgg ctccacactg acagcaggac ctgcctggcc attaaactcct gcgccttggg 60
136 caatggcggc tgccagcacc actgtgtcca gctcacaatc actcggcatc gctgccagtg 120
137 ccggcccggg ttccagctcc aggaggacgg caggcattgt gtccgtagaa gcccggtgtg 180
138 caacaggaac ggcagctgca tgcacagggt ccagggtggc cggggcctcg cccgctgtga 240
139 gtgccacgtg ggctatcagc tagcagcgga cggaaggcc tgtgaagatg tggacgaatg 300
W--> 140 tgccgcangg ctggccagtg tgcccatggc tgctcaacac ccaggggtcc ttcaagtgcg 360
141 tgtgtacgyg ggctatgagc tgggcgcgga tggccggcag tgctaccgga ttgagatgga 420
142 aatcgtgaac agctgtgagg ccaacaacgg cggtgtctcc catggctgca gccacaccag 480
143 tgctgggccc ctgtgcacct gtccccgcgg ctacgagctg gacacagatc agaggacctg 540
144 catcgatgtc gacgactgtg cagacagccc gtgtgtccag cagggtgtgca ccaacaaccc 600
145 tggcgggtac gagtgcggct gctacgccgg ctaccggctc agtgccgatg gctgcggctg 660
146 tgaggatgtg gatgagtgcg cctccagccg tggcggctgc gagcaccact gcaccaacct 720
147 ggccggctcc ttccagtgtc cctgcgaggg cggtaccgg ctgcacgagg accgtagggg 780
148 ctgcagcccc ctggaggagc cgatggtgga cctggacggc gagctgcctt tcgtgcggcc 840
149 cctgccccac attgccgtgc tccaggacga gctgccgcaa ctcttccagg atgacgacgt 900
150 cggggccgat gaggaagagg cagagttgcg gggcgaacac acgctcacag agaagtttgt 960
151 ctgcctggat gactcctttg gccatgactg cagcttgacc tgtgatgact gcaggaacgg 1020
152 agggacctgc ctctggggcc tggatggctg tgattgccc gagggctgga ctgggctcat 1080
153 ctgcaatgag acttgtcctc cggacacctt tgggaagaac tgcagcttct cctgcagctg 1140
154 tcagaatggt gggacctgcg actctgtcac gggggcctgc cgctgcccc cgggtgtcag 1200
155 tggaaactaac tgtgaggatg gctgccccaa gggctactat ggcaagcact gtcgcaagaa 1260
156 atgcaactgt gccaaaccgg gccggtgcca ccgcctmtac ggggcctgcc tctgcgaccc 1320
157 agggctctac ggccgcttct gccacctcac ctgcccgcgg tgggcctttg ggccgggctg 1380
158 ctcgaggagg tgccagtgtg tgcagcccca cacgcagtc tgtgacaaga gggatggcag 1440
159 ctgctcctgc aaggctggct tccggggcga gcgctgtcag gcagagtgtg agctgggcta 1500
160 ctttgggccc ggggtgctgc aggcatgcac ctgcccagt ggcgtggcct gtgactccgt 1560
161 gagcggcgag tgtgggaagc ggtgtcctgc tggcttccag ggagaggact gtggccaaat 1620
162 ccctgctctc tataccagag acagtgaaca ggcctcgcca gagaagcacc tccaccactc 1680
163 ccggagcccc cagttcctga gaggaggaag gctcctcccc tgccctcct ctgctcctcc 1740
164 tctgccctt cctctctttt cttaagagc ctgtggtgct ccgaggataa gccacaggcg 1800

```

RAW SEQUENCE LISTING

PATENT APPLICATION: US/10/067,761

DATE: 02/25/2002

TIME: 11:56:20

Input Set : N:\Crf3\RULE60\10067761.txt

Output Set: N:\CRF3\02252002\J067761.raw

```

165 atgacatccg agtgttgata gaaagatcaa cactttataa agataacatc ccctcttaaa 1860
W--> 166 aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaaaaaaa aaaaanaaaaa 1920
W--> 167 aaaaaaaaaa aaaaaatnt 1939
170 <210> SEQ ID NO: 5
171 <211> LENGTH: 1222
172 <212> TYPE: DNA
173 <213> ORGANISM: Homo sapiens
175 <400> SEQUENCE: 5
176 ggcacgagcc acaggtctga atgcccttcc cagcgggtata tctccctcca gtgttccac 60
177 tgcggactga gggccatgac cgggcggatc gtgggagggg cgctggcctc ggatagcaag 120
178 tggccttggc aagtgaagtct gcacttcggc accaccacac tctgtggagg cagctcatt 180
179 gacgcccagt ggggtgtcac tgccgcccac tgcttcttcg tgaccggga gaaggtcctg 240
180 gagggctgga aggtgtacgc gggcaccagc aacctgcacc agttgcctga ggcagcctcc 300
181 attgccgaga tcatcatcaa cagcaattac accgatgagg aggacgacta tgacatcgcc 360
182 ctcatgcggc tgtccaagcc cctgaccctg tccgctcaca tccaccctgc ttgcctcccc 420
183 atgcatggac agacctttag cctcaatgag acctgctgga tcacaggctt tggcaagacc 480
184 agggagacag atgacaagac atcccccttc ctccgggagg tgcaggtcaa tctcatcgac 540
185 ttcaagaaat gcaatgacta cttggtctat gacagttacc ttacccaag gatgatgtgt 600
186 gctggggacc ttctgtgggg cagagactcc tgccaggagg acagcggggg gcctcttgtc 660
187 tgtgagcaga acaaccgctg gtacctggca ggtgtcacca gctggggcac aggtgtggc 720
188 cagagaaaca aacctggtgt gtacaccaa gtgacagaag ttcttccctg gatttacagc 780
189 aagatggaga acagagctca gcgggttgaa aaagcgtgga cctacaggcc aggcaggcag 840
190 ttgctgggca gatgttctcc cagaagtatt tttttgtgta aggttgcaat ggactttgaa 900
191 aacgtttcag tttctgcaga ggattttgtg atagtttttg ttatcaagca tttatgcatg 960
192 ggaatccgct cttcatggcc tttcccagct ctgtttgttt tagtcttttt gattttottt 1020
193 ttgttgttgt tgtgtctttt tttaaaaaac acaagtgact ccattttgac tctgacaact 1080
194 ttcacagctg tcaccagaat gctccctgag aactaccatt ctttcccttt cccacttaaa 1140
195 atatttcac atgaacctcac tactatcata aaagagtata aagtaataaa ataataaaaa 1200
196 gttaaaaaaa aaaaaaaaaa aa 1222
199 <210> SEQ ID NO: 6
200 <211> LENGTH: 1394
201 <212> TYPE: DNA
202 <213> ORGANISM: Homo sapiens
204 <400> SEQUENCE: 6
205 gctctaatac gactactata gggaaagctg gtacgcctgc aggtaccggt ccggaattcc 60
206 cgggtcgacc cagcgtccg ctgatatgctc gatgtgacgg agtctcggat tgcaaagacg 120
207 gggaggacga gtaccgctgt gtccgggtgg gtggtcagaa tgccgtgctc caggtgttca 180
208 cagctgcttc gtggaagacc atgtgctccg atgactggaa gggtcactac gcaaattgtt 240
209 cctgtgccc actgggtttc ccaagctatg tgagttcaga taacctcaga gtgagctcgc 300
210 tggaggggca gttccgggag gagtttgtgt ccatcgatca cctcttgcca gatgacaagg 360
211 tgactgcatt acaccactca gtatatgtga gggagggatg tgccctctggc cactgtggtta 420
212 ccttgacgtg cacagcctgt ggtcatagaa ggggctacag ctacgcacac gtgggtggaa 480
213 acatgtcctt gctctcgag tggccctggc aggccagcct tcagttccag ggctaccacc 540
214 tgtgcggggg ctctgtcatc acgcccctgt ggatcatcac tgctgcacac tgtgtttatg 600
215 acttgtacct ccccaagtca tggaccatcc aggtgggtct agtttccctg ttggacaatc 660
216 cagccccatc ccaattgtgt gagaagattg tctaccacag caagtacaag ccaaagaggc 720
217 tgggcaatga catcgccctt atgaagctgg cggggccact caggttcaat gaaatgatcc 780
218 agcctgtgtg cctgcccac tctgaagaga acttccccga tggaaaagtg tgctggacgt 840
219 caggatgggg ggccacagag gatggagcag gtgacgcctc ccctgtctg aaccacgcyg 900

```

RAW SEQUENCE LISTING

DATE: 02/25/2002

PATENT APPLICATION: US/10/067,761

TIME: 11:56:20

Input Set : N:\Crif3\RULE60\10067761.txt

Output Set: N:\CRF3\02252002\J067761.raw

220	ccgtcccttt	gatttccaac	aagatctgca	accacagggga	cgtgtacggt	ggcatcatct	960
221	ccccctccat	gctctgcgcg	ggctacctga	cgggtggcgt	ggacagctgc	cagggggaca	1020
222	gcggggggcc	cctggtgtgt	caagagagga	ggctgtggaa	gttagtgagg	gcgaccagct	1080
223	ttggcatcgg	ctgcgcagag	gtgaacaagc	ctggggtgta	caccctgtgc	acctccttcc	1140
224	tggactggat	ccacgagcag	atggagagag	acctaaaaac	ctgaagagga	aggggacaag	1200
225	tagccacctg	agttcctgag	gtgatgaaga	cagcccgatc	ctcccctgga	ctcccgtgta	1260
226	ggaacctgca	cacgagcaga	cacccttgga	gctctgagtt	ccggcaccag	tagcaggccc	1320
227	gaaagaggca	cccttccatc	tgattccagc	acaaccttca	agctgctttt	tgttttttgt	1380
228	gtaggagat	gaaa					1394
231	<210> SEQ ID NO: 7						
232	<211> LENGTH: 1079						
233	<212> TYPE: DNA						
234	<213> ORGANISM: Homo sapiens						
236	<400> SEQUENCE: 7						
237	ggcagagct	ggggccacac	ccaccctagc	catacttaca	gctcggatat	gctccaggac	60
238	acggtggtgc	cctgctcagc	actcagctct	gcaacagctt	gcgtgtacag	cggagccctc	120
239	accccccgca	tgctttgcgc	tggtacctg	gacggaaggg	ctgatgcatg	ccaggagat	180
240	agcgggggccc	ccctagtgtg	cccagatggg	gacacatggc	gcctagtggg	ggtggctcagc	240
241	tgggggctgt	gctgcgcaga	gcccaatcac	ccagggtgtct	acgccaaagt	agctgagttt	300
242	ctggactgga	tccatgacac	tgctcaggac	tccctctctg	agtcctgctg	tttccctccag	360
243	tctcactgca	caccactgct	catgcttctt	ggggcctcca	gcagctccac	taatggagga	420
244	gaggcagtag	cctccgacac	agaacgcag	gacctcctac	tactgtgtgt	gaggaacagt	480
245	cactacccac	tggccagcca	cccagccaac	aggtctctct	tcttgggccc	tgatttcaga	540
246	gtcctctttc	tcactagaga	ctcaatgaca	gaagagaggg	tgggacttgg	ttgggcatgc	600
247	tgtggttgct	gagggatgag	ggggaggaga	gaggtaggag	ctggagatga	agaggctgct	660
248	agaagcagca	ggaagcctgc	ccttctgccc	tctccctctc	ctgcccctgt	gtgagtcttt	720
249	tgggaggggtg	ctgggaggtg	ccccccgtcc	cacctttttc	ctgtgtctta	ggtgggctaa	780
250	gtgcctccct	agaggactcc	atggctgaga	ggctcctggg	cagatggggg	caaggctggg	840
251	ccagcccaga	tgaagcctat	gggagtcagg	acctctctca	ctctccctct	ccactccctt	900
252	tctgtttctc	acctggctgt	ggctggccct	gtgtgggggtg	ggtaccttgg	aaaacaagaa	960
253	ggttgaggtt	ggtctaggac	attggtttta	aatgacagtt	ctgtgaactg	gtccaaggag	1020
254	ttctgttatt	aaagtgatat	atggtcttgg	tccagtaaaa	aaaaaaaaaa	aaaaaaaaaa	1079
257	<210> SEQ ID NO: 8						
258	<211> LENGTH: 874						
259	<212> TYPE: DNA						
260	<213> ORGANISM: Homo sapiens						
262	<400> SEQUENCE: 8						
263	gccaaagtgt	tcttcccggc	tgaccgagtc	ctctgcgcct	atgaggaagg	tcttcaagcc	60
264	gtcagcgtg	cctgtggaca	gcgtggcccc	ggccccccca	agcctcagga	gggcaacaca	120
265	gtccctggcg	agtggccctg	gcaggccagt	gtgaggaggc	aaggagccca	catctgcagc	180
266	ggctccctgg	tggcagacac	ctgggtcctc	actgctgccc	actgctttga	aaaggcagca	240
267	gcaacagaac	tgaattcctg	gtcagtggtc	ctgggttctc	tgcagcgtga	gggactcagc	300
268	cctggggccg	aagaggtggg	ggtggctgcc	ctgcagttgc	ccagggccta	taaccactac	360
269	agccagggct	cagacctggc	cctgctgcag	ctcgcgccacc	ccacgaccca	cacaccctc	420
270	tgcctgcccc	agcccggcca	tcgcttcccc	tttggagcct	cctgctgggc	cactggctgg	480
271	gatcaggaca	ccagtgatgc	tcctgggacc	ctacgcaatc	tgcgcctgcg	tctcatcagt	540
272	cgccccacat	gtaactgtat	ctacaaccag	ctgcaccagc	gacacctgtc	caaccgggcc	600
273	cggcctggga	tgctatgtgg	gggccccag	cctgggggtgc	agggccctg	tcaggtctga	660
274	tagggagaag	agaaggagca	gaaggggagg	ggcctaacc	tgggctgggg	gttggactca	720

VERIFICATION SUMMARY

DATE: 02/25/2002

PATENT APPLICATION: US/10/067,761

TIME: 11:56:21

Input Set : N:\Crf3\RULE60\10067761.txt

Output Set: N:\CRF3\02252002\J067761.raw

L:9 M:271 C: Current Filing Date differs, Replaced Current Filing Date

L:140 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4

L:166 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4

L:167 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:4

L:527 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14

L:530 M:341 W: (46) "n" or "Xaa" used, for SEQ ID#:14